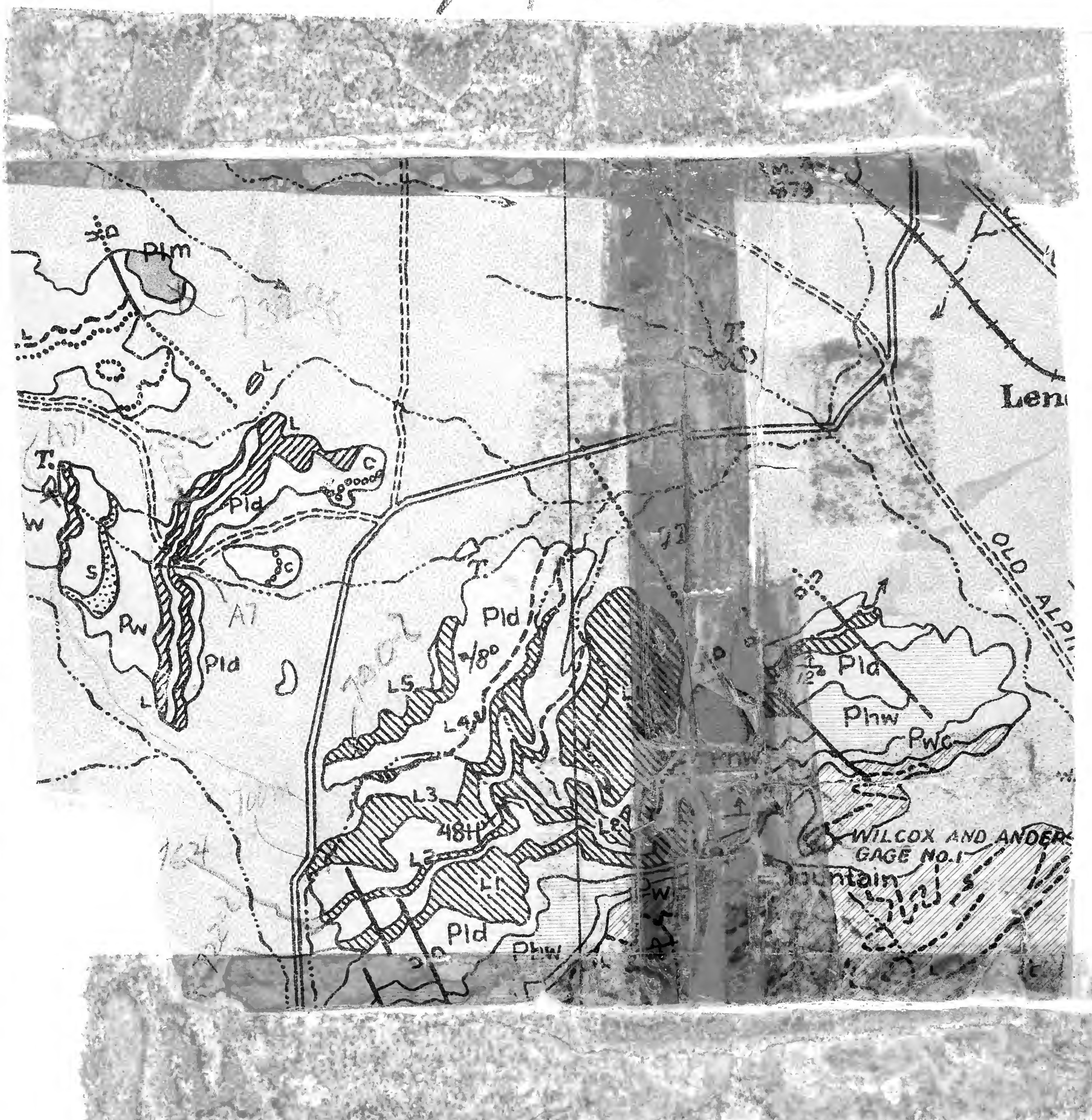
1961



Plm
Pld
Rw
Phw
Pwc
L5
L4
L3
L2
L1
48H
OLD ALP
WILCOX AND ANDER
GAGE NO.1

MSLS
port 1934
c.pub

3378

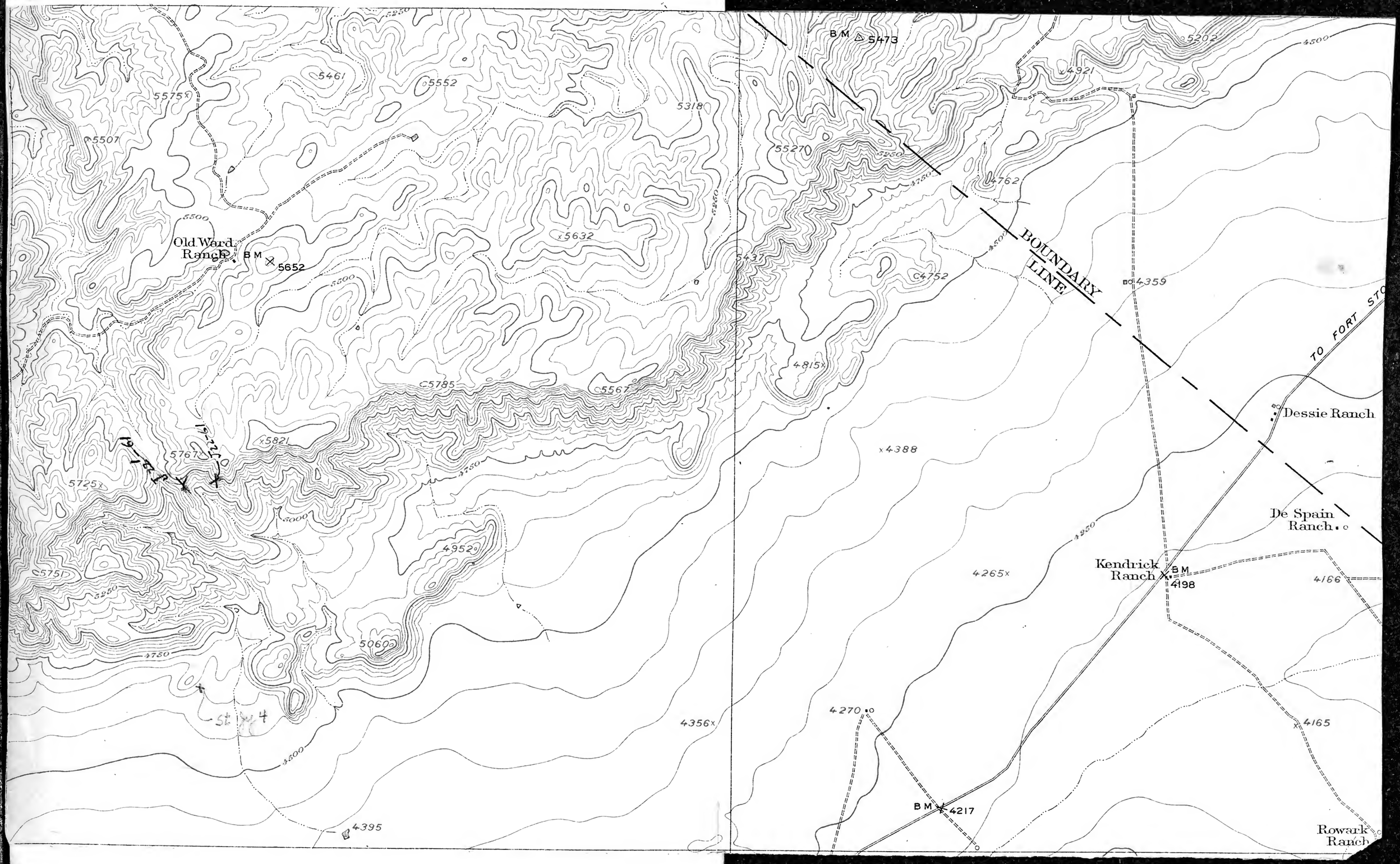
industrially less important districts are mapped on a scale of $\frac{1}{125,000}$, or about 2 miles to an inch, and cover areas measuring 30′ in latitude and longitude. Reconnaissance maps of desert or sparsely inhabited regions have been made on a scale of $\frac{1}{250,000}$, or about 4 miles to an inch, covering areas measuring 1° in latitude and longitude. Maps for special purposes are made on scales larger than $\frac{1}{62,500}$.

A topographic survey of Alaska has been in progress since 1898, and nearly 35 per cent of its area has now been mapped. About 10 per cent of the Territory has been covered by reconnaissance maps on a scale of $\frac{1}{625,000}$, or about 10 miles to an inch. Most of the remaining area surveyed in Alaska has been mapped on a scale of $\frac{1}{250,000}$, but about 3,500 square miles has been mapped on a scale of $\frac{1}{62,500}$.

A large part of the Hawaiian Islands has been surveyed, and the resulting maps are published on a scale of $\frac{1}{62,500}$.

The features shown on these maps may be arranged in three groups—(1) water, including seas, lakes, rivers, canals, swamps, and other bodies of water; (2) relief, including mountains, hills, valleys, and other features of the land surface; (3) culture (works of man), such as towns, cities, roads, railroads, and boundaries. The conventional signs used to represent these features are shown and explained below. Variations appear on some earlier maps, and additional features are represented on some special maps.

0859


5461
5552
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5507
5500
Old Ward Ranch
B M
5652
5632
5431
5785
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5821
5767
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5000
4952
5750
5250
5060
4750
4356x
4395
B M
5473
5202
4500
4921
5250
5270
4750
4762
4500
4752
BOUNDARY LINE
4359
4815x
TO FORT STO
Dessie Ranch
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De Spain Ranch
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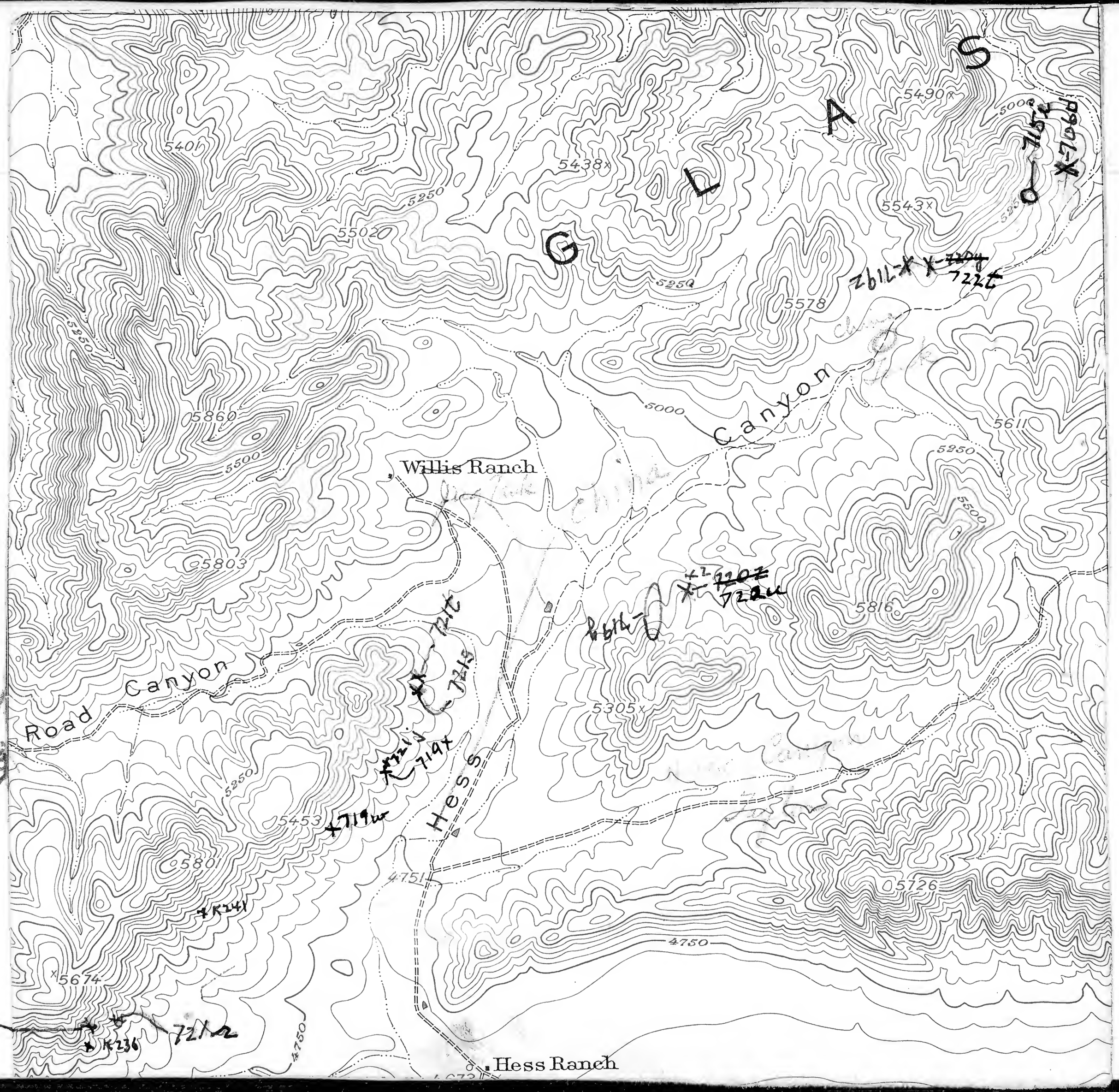
4165
B M
4217
Rowark Ranch


Willis Ranch
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5402
5502
5250Q
719x
721x
721g at 5200'

0861

(3)

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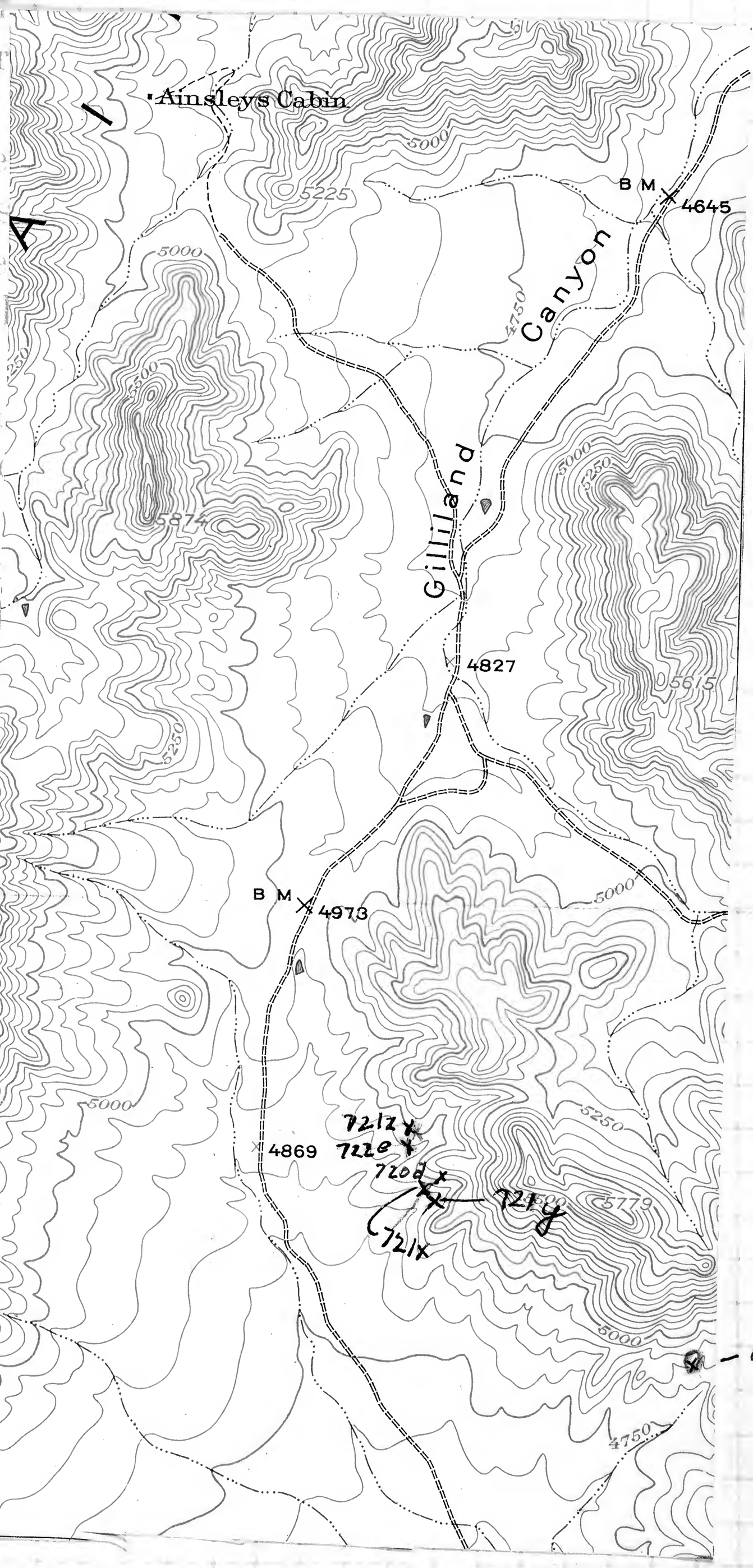
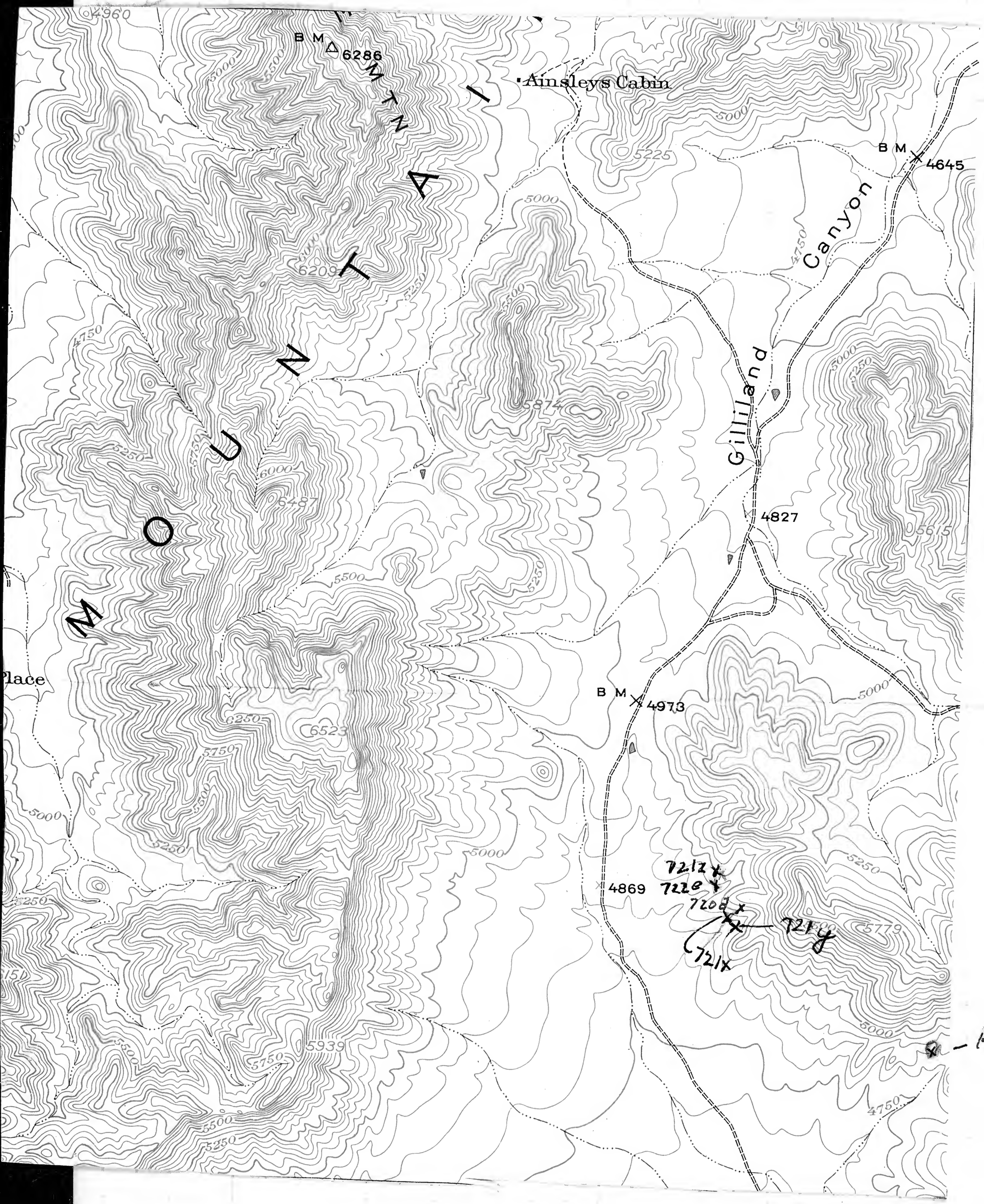


8 — King 123

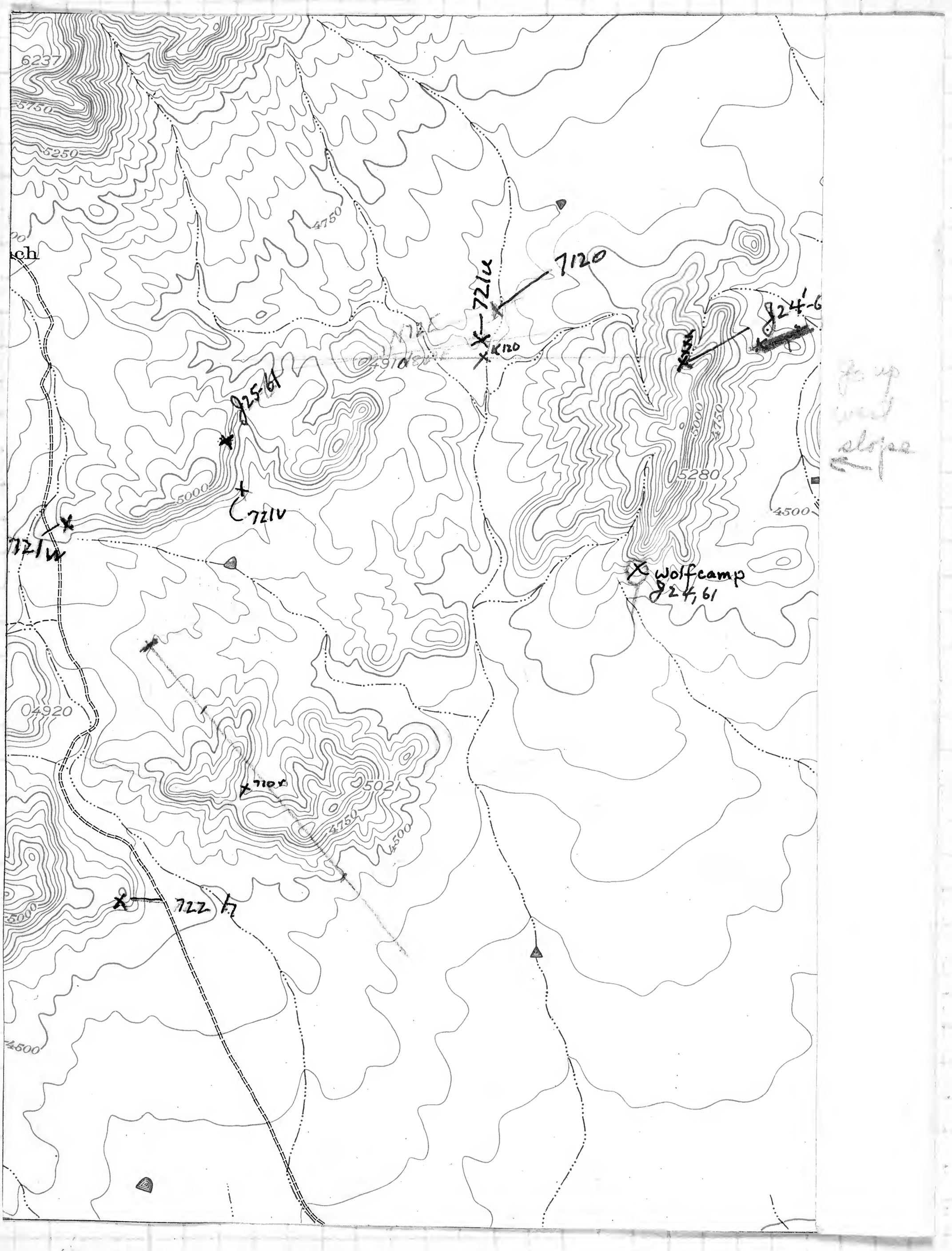
0861



8 – King 123

0862

4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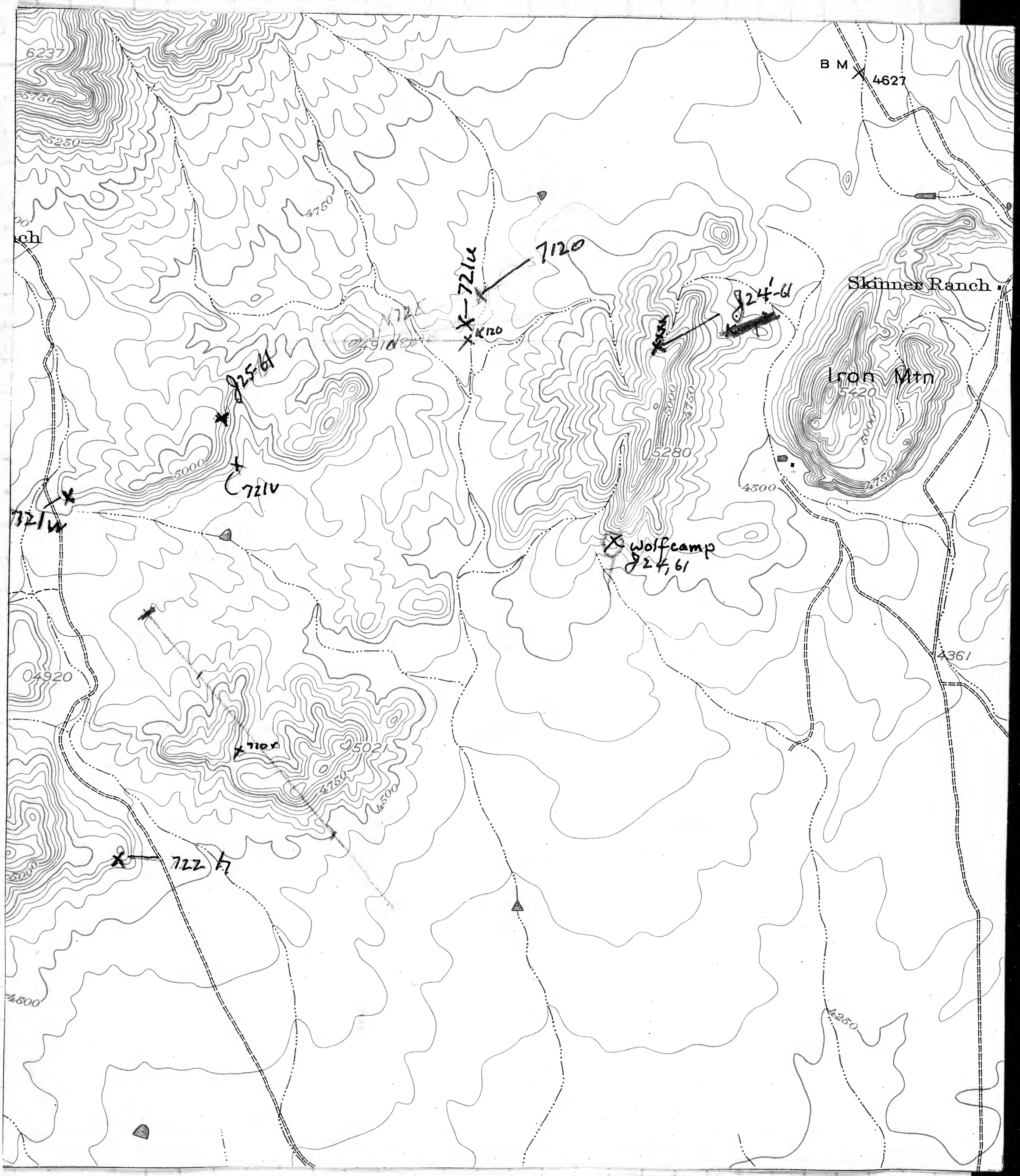
0862

4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Skinner Ranch
Iron Mtn
5420
5000
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wolfcamp
924,61
4361
4250

0863

ing spurs separated by ravines
their lower ends by a sea cliff.
abruptly at the valley in a ste
gradually away and forms an i
ersed by a few shallow gullies.
features is represented, directly
sketch, by contour lines.

The contour interval, or the v
one contour and the next, is sta
This interval differs according
mapped: in a flat country it m
mountainous region it may be a
that the contours may be read n
every fourth or fifth, are made l
accompanied by figures showing
points—such as road intersecti
and benchmarks—are also give
show altitudes to the nearest f
for the altitudes of benchmarks
vey's bulletins on spirit leveli
triangulation and transit-traver
bulletins.

Lettering and the works of m
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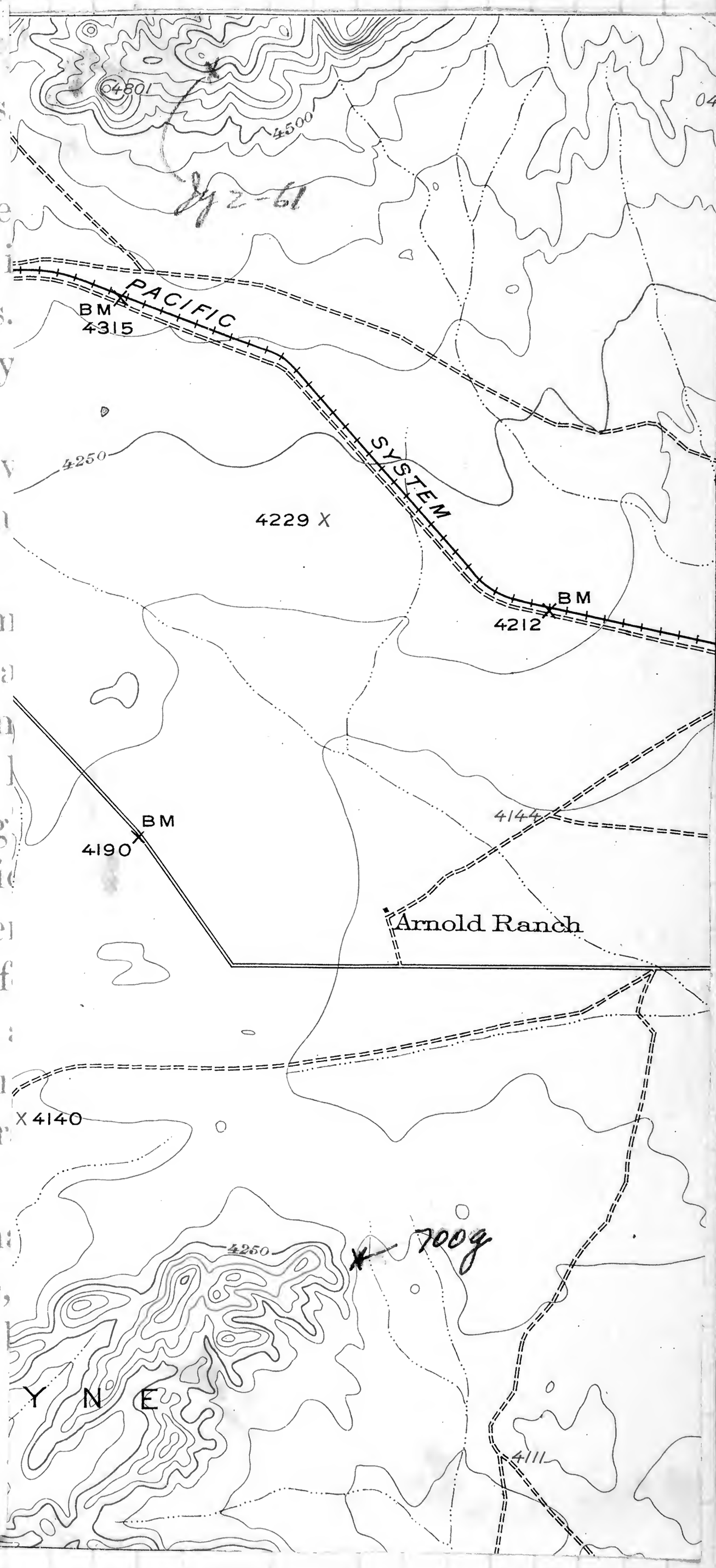
ship, or reservation, are shown
different kinds and weights.
travel the greater part of the
lines; poor public roads and



0863

TO ALPINE

SOUTHERN PACIFIC SYSTEM

Lenox

BM 4315

4317

4480

4500

4861

4410

Old Payne Ranch

4806

4500

4500

4500

4811

4500

4500

Dugout Mtn

6000

5195

4250

4258

4229 X

BM 4212

BM 4190

4144

Arnold Ranch

Creek

Dugout

4386

4615

4250

X 4140

4130

4250

4269

4250

4096

PAYNE

4168

4056

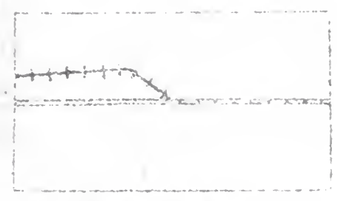
4111

0864

(7)

NTIONAL SIGNS

CULTURE
printed in black)



Electric railroad

Tunnel

Wharves

nship t line

Reservation line

Land grant line

City, vil boron

or ry

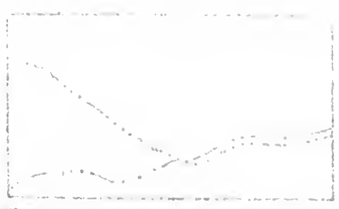
Prospect

Shaft

Mine

s

Falls and rapids



Intermittent streams and ditches

Cana dit

mittent lake

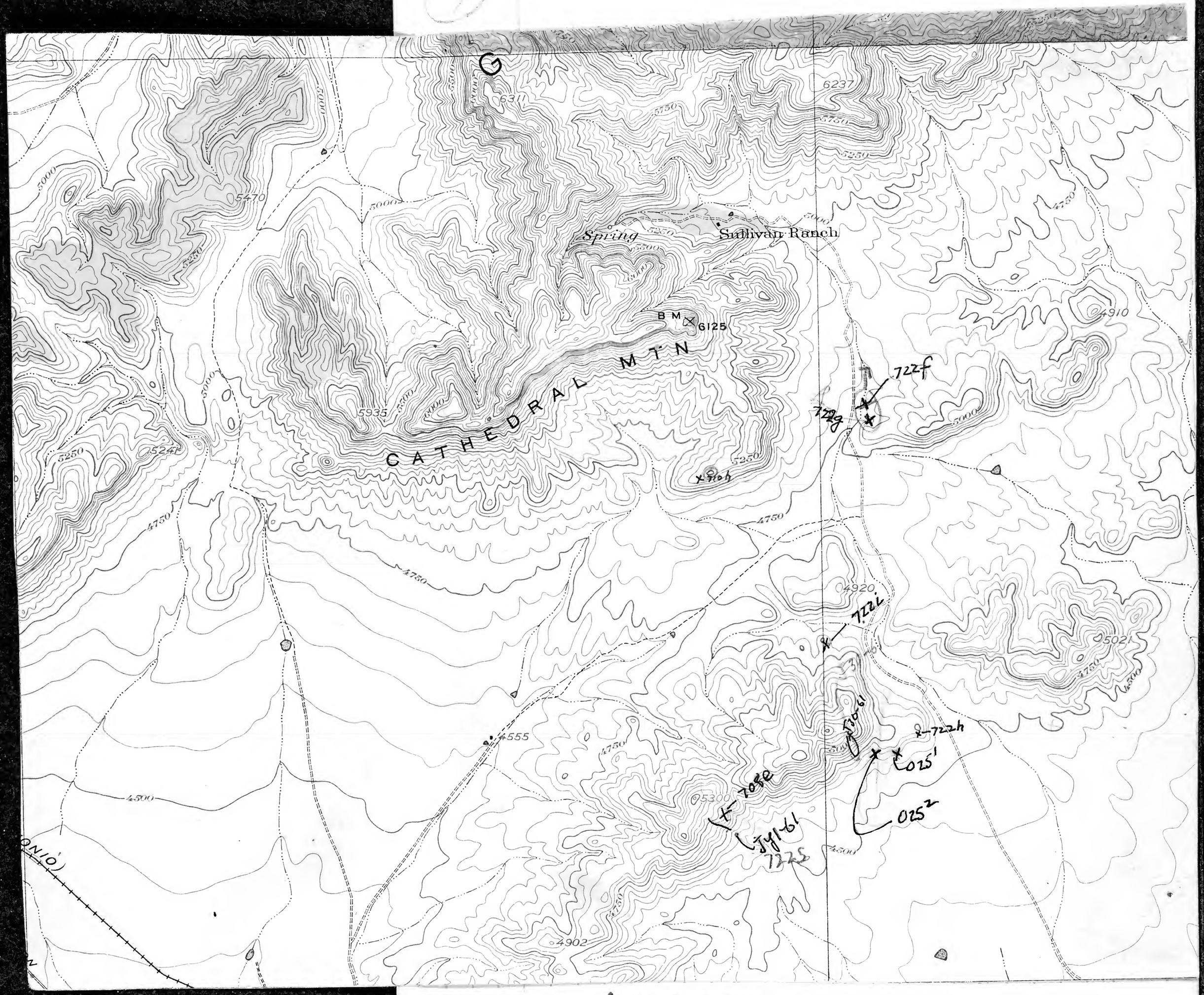
Glacier
(Or shown by contours printed in blue)

Spring Well

WOODS

J 30-61 = 722-A

0864


Spring
Sullivan Ranch
B M
6125
CATHEDRAL MTN
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5021
722f
722g
722i
722h
025'
025²
722e
Jy-61
7225
J 30-61 = 722.c

Numbers available

722

w, x, y, z.

0865

Parkway Hotel
C. W. Horn

(8) June 9
Purchase of $400 Travelers cheques -- 14.00
5 rolls film (36 exposures) -- -- 11.63

June 12
$120 in Travellers cheques
$20 T 98-091-447-449 } belong to Cooper = $110
$50 P 77-541-880
Zoye, Jennie, Jeb, Phelps Deck

Jennie Decie leaves at noon.

June 17th — About the fifth day of rain in Wrangell — first for us. Early, Sunday evening, went to Alpine on morning to buy supplies: sacks, pencils, tags, etc. Met Dave McClain, Mine inspector for this area. Stopped on way home called on Jennie Decie who manages the Decie place. Travis Roberts is man to see to get on Arnold place.

June 18

Pictures EK. 6,7 2 views of 721 f.
Left morning working at 721 f. The small ridge above Cod Cove at 20' level. The top of The Tower Wood but are rare. Shaded all fossils are difficult to find well concentrated. The bed with small Leptodus appears to be in lower part of upper tier of biohermes, roughly 20-25 feet below the top of the Tower Wood ledge.

In afternoon explored slope of hill 5452 but found very few fossils suitable for etching. Here, like at 721 f the lower Wood beds 3 thick biohermal bands,

(9) The lowest beds at 719W on hill 5453 consist of 10-15' (possibly 20') of massive limestone about the same lithologic color of considerable age. This was followed by about 40' of bedded gray limestone moderately thick bedded with a thin upper bedding surface of very fine silica. The upper part of this bed is heavier bedded than below but not massively bioherma.

Lower Word 719W

Above this layer of 40' which is poorly exposed on the surface because the layers go to pieces some bedding limestone and clay. Thick beds becoming bioherms at the top and in places forming a prominent ledge. The whole is 30' thick the upper part 10-15'.

D Bio 30' C. Bio 40' B Bio 15-20' A Coccin.

All fital layer is massively bioherma at top, in places 15-20' but the lower two feet or more are light weathering blocky limestone, often containing a small phycodes and in places leaves of productus.

Scattered fossils appear in the two upper biotherms together with considerable detrital material. Also corals are present Orthotetes is common and small rounded siliceous nodules are common. Cosmophorus was seen in all parts of the lower Word limestone and thus is a good index to this level.

721j locality:- In 1959 one piece from this locality contained a fauna similar to that of 702c and it was thought that Upper Leonard was present. Restudy of the section leads me to believe that it is all lower Word and no Leonard is present, alone

(10) large Pennsylvania well up in the lower Biohermal part of the Lower Word. The Fort Stockton road has been remembered: US385.

June 19.

Ekt 8 - Mesa Ranch and hill to north

8-16 - Sponge bed
17, 18 = 702c from west

19, 20 = View up Mesa Canyon showing bedded Mesa opposite the Mesa

21 - View Mesa Ranch from west from near Mesa Ranch to show thin bedded Mesa Limestone

719x - just south of 721j. 4 blocks

On spur between two arroyos under knob at 5250 at base of sequence are some 25-30' of shaggy biohermal limestone containing Coscinophera and other fossils. We took four blocks which contain large productids from about 10' above TG lowest exposed rock. This appears to contain a fauna like 702c but as nearly as I can tell it is definitely part of the Lower Word limestone. This is the same material as we studied from 721j or 19, 59 but designated by a separate number.

In morning visited Word I mean the divide near 702c. This is all dolomitized Went to sponge bed for photographs

0868

(11) June 20—

1K1 — Sandhills at base of big bohemia
1K2 — Bohemia on hill
1K3 — Line sand ledge at base of Bohemia on slope = 719y. Cobbly beds for 1 or 2 feet below heavy ledge which contains many small detrital fossils. Main mass of bohemia big one. Two layers which dip toward the hills — Next ledge up shows chiefly has fewer fossils at top but on the surface. Holes made by burrowers.
On SE slope the basal calcareous is 3-4 feet thick, followed by soft cobbly beds then irregularly bedded limonite capped by a CaCO3 deposit. So the main skeletal mass which is a calcareous all those beds dip at 5° toward the bohemia. The calcareous beds have numerous Holes [illegible].

1K4,5 — view of NE side hill showing thick flat calcareous & knob above it

~~720z~~ — 1K6 — Close-up of knob at King 105
= 722u

1K7,8 view from 720e showing K105 and 719y. Taken with 75mm

719z about 50 above valley floor
Lens in the lower ward 4

1K9 — blue flowers

No collecting possible at 720Z
so went over to the Wood 4 opposite
the divide in Bear Canyon. The
lowest beds with fossils were about
50 feet above the level of the divide.

0869

(12) This is locality 7192. Another locality about 100 yards west is called 7204 and is about 50' higher. On bedding plane the fossil cycads form leaves and are near the base of Word 4, probably below the base

7202 is used to denote a large isolated biohem of Lasmochlia bed just west of 7202.

7194 is a series of biohems on the slope just west of 7202. They contain abundant Lasmochlia and the calcarenite beds under and dipping toward the biohems are well displayed along the slope into the arroyo.

7194-Q June 21 — just under 5674

10'-15'	F	Basal beds very massive limestone with long stalked corals and masses of Coscinophora. The Coscinophora in the corals occupy the lower 10', the middle 15' and the very coarse calcarenite with few fossils. The upper 7'-10' contain Coscinophora and little else in the top of the biohermal facies. This is similar to the section at 7194 where Coscinophora is in the lower biohermal but the shells with waved forms are below Coscinophora and are apparently not exposed here.
38'	E	
15'	D	
16'	C	
65'	B	
32' visible	A	B — 65' vertical of blocky, light gray weathering fine grained calcilutite with abundance of Parafusulina terminating upward in massive

0870

(13) Ledge of fine grained calcarenite with thickness (12 to 6") of chert on top.

721gc C-16' vertical of thin bedded platy calcarenite and plates of yellow shale interbedded with tan dolomite. Varying which is thicker, blocky, frequently with numerous fucoides.

D-E massive bluish calcarenite at base becoming dolomitic toward the middle 15-20' to form a tan colored rock with many pits and remnants of fossils, shrunk off & mostly covered but with thinner bedded rock with fucoids and thin 10-15' of massive limestone at contact. Bed E forms the top of linestone of band with shale. Bed E is followed by orange-yellow platy shale. Dis the lower part of the upper bolsom

The top of E is about level with a point halfway between the two forks of Ledbetter Mtn.

F is 10-15' of yellow shaly rock but with bluish lenses of rock like D. The lenses are fewer than in D and suggest those of bed E.

1K10-14

1K10-14 — 10, 11, 12 Cross section at 721gc. 13 is back slope of Leonard Mtn showing the Burnt house. 14 is looking west from 721g and shows measure upper edge of the Lower Word.

1K15 — looking up lower Hess Canyon

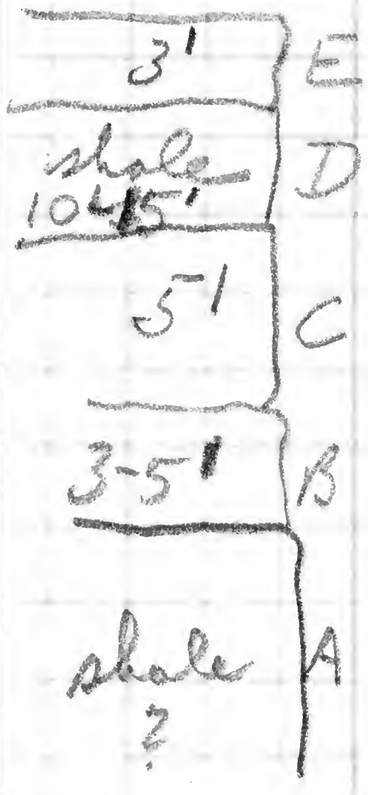
Top of E is estimated to be at 5200' on the slope.

0871

(14)

721 m -

A - shale covered
B - mealy bed with Amidophlus
C - Sandstone & calcarenite, sandy & orange yellow on top.
D - Shale covered
E - Orange sandy beds



Collection made from B - 2 blocks taken. 721 n is estimated to be at 50:50%.

721 s - On Coscinophora a little about 1/3 way up on both Word. Trilobite bone

721 t Lower Coscinophora near base of Lower Word

709 - Knob at N end of last dirt circle Leonard Mtns. Mostly massive calcarenite but small conglomeratic in the limestone at this exact site. Some Uncinuloides and Dictyella. On north side Knob limestone continues but beds dip toward Leonard Mt and consist of blocky dark limestone and dolomite with numerous ammonites. I suspect that the beds of the knob lie well above the top of the Burnt Mountain.

In going from the knob (709) to King's lot. 123. We went through yellow shale, hard and

(15)

brittle and some blue shale but saw isolated bioherms scattered about. Few locality of King (123) Ranch but had gone to pick and spread out on a large.

721 S — This comes from about top of Cosinophora zone of Lower Wood.

1K16 — Cactus
1K17 —
1K18 — View of 711 and L W above it.
1K19 — Chert & Red Lst top of Kings Ranch bed.
1K20 — 702c knob, close up from west
1K21 — small bioherm just east of 702c

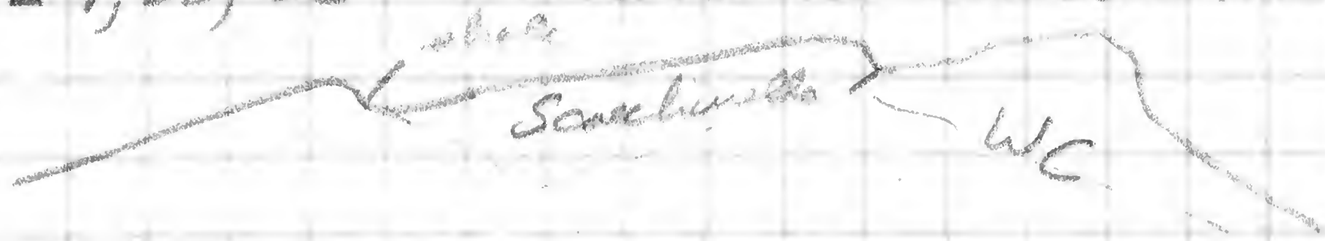
J22 — King's Ranch bed at about 5450'
Here it is quite thick and occupies about 30' vertical from bottom to top. Bottom is buff to tan coquinoid and has a chert line about 4-5' thick. The chert is gray to brown to orange on color. Reticulum is common above 1-2' below the top of the chert beds. The bed is fossiliferous throughout and the upper chert are mostly colloidy like those which goes to pieces and spread over the surface. Some big productids also about half way up.

J22' — Occurs near pass at headwaters of Hess Canyon. The fossil bed is thinner here at J22 but occurs at about 5400' Found Echamyechenia but it is very rare.

0873

(16) 1K 22,23 – View of 706d and closeup of chert 706d – is about opposite

1K 24, 25, 26 – West end knoll showing profile



1K 27 – Looking west at end of hill with Lower Wood & showing capitan in Distance.

1K 28 – Aulacoceras bivalves 703a
1K 29-31 bivalves at 703a.
1K 32 – Leptodus ledges 703a'

June 23 – Spent morning looking at Wood & little success. Took 2 blocks from locality 706d. In afternoon went up to Hall Ranch for pictures of bivalves and possible wood #, blocks. Took 2 blocks.

Road changed to run nearly parallel to Aulacoceras ledges. Much erosion in old road showing up bivalves in relief and fine weathering yellow shale.

722t – float originally labelled 720y but changed to 722t.

0874

(17) 1K33 — Mtn W of clear Mtn from south

1K34,35 Wolfram mine of hill west of clear Mtn. 0 34 to NE 0 35 to NW

1K36,37 Southeast nose of Mtn W of clear Mtn.

2K1 — Hill west of clear Mtn from N
2K2 — mouth Kibby 120.
2K3,4 — West fork Leonard Mtn

June 24
Went to clear Mtn Ranch to south end of Mtn west of clear Mtn. Here found about 30 feet of shale overlying orange pellet conglomerate and Quartzite. Saw Wolfdang fossil in float here. Saw no fossils in the shale. The Wolfram deposit appeared to be at base of a large block detached from the main part of the Mountain. The shale overlying the shale dipped steeply into the mountain and a big gap appeared between it and the main mass of the mountain.

Went up northeast spur of this Mtn to Kings Coal #3 to see Ammonites and look for plantlike annelid produced the Hieroglyphics in the clay & shale of the "Hogs" and the Ammonites on the top 10 or 15'. The top of the Hogs is very conglomeratic but the pebbles are rounded. The fossils occur mostly on the reticulated shale on the very upper surface of the

0875

(18) Near Limestone
Above the Near on yellow siltstone
slaty rock, the typical Leonard. Just
it exposure Thin (6" to 1') beds of dark
granular limestone with many fossils

On the upper part bed (top 5') of the
Near at 8815 Rhipidomella (large) I
Hesperonomia?), Avonothus, Chonetes, sp.,
Unicumbites, large Straparollus, Pustula
Derbya and occasional large productids
and 2 fine ribbed Neospirifer. The
Unicumbites suggests Near. Elev. of 7107.
The north spur of Mid hill nearby to the east
is all dolomite.

721 W — In bank of stream along
road to clay slide a 1½' layer
of calcarenite with many fossils,
especially Enteletes. Under the
upper blocky layer the rock is
irregularly bedded with many
large productids and large Leptodus
Richardsoni. Lower layers suggest
bioherm material. This bed
is about ½ mile, N 80° E of hill 4910
and appears to be in Kings Locality
No. King gives the Near as lower
Permian. Horizon. Took 6 blocks on
June 24.

0876

(19) J 25=

2K4 — Clay Slide
2K5 — Sullivan Peak from saddle W of Clay Slide

2K-7,8 Cap ledge at 7104

712o is N72°E of hill 4910 on the ridge

In morning went to hill west of clay slide hill for lower Wood. Impossible to get up in valley between hills and found my little there.

Went to 710 u but found no good blocks.

Took a good block from 7215 here we have near the base of the lower Wood. Below the massive ledges come thin-bedded Wood with Mahonia and other species but specimens are so distorted that no good pieces could be found.

On way home took 3 more pieces at 721 u.

0877

(20) 2K9 - View west from 720d.

720d - Lowest bed contact zone at about +4900 near mouth of canyon. Lower beds are massive with Cocinoplura but take many other fossils. Perhaps 3' of these beds followed by thin limestone with yellowish algious rock up to about 5038' where a brachiopod bed with coral but very scattered fossils forms a bench.

~6 higher up to about 5076' is another bench capped by altered calcareous, dark gray fossiliferous.

This ledge is followed by 15' of yellowish shale containing scattered calcareous lenses and nodules bearing fossils. This is about the level of 720d, which is 5100'. Took 3 blocks from 720d.

2K10 - Coeinoplura at base of 721y

721x - Blocks from these come from the lower 30' of the Lower Wolf in the beds with Cocinoplura. This is not common but quite scarce at the base. Took 4 blocks.

721y - On the hillside opposite 721x and in the same beds mostly brachiopod limestone but fossils not well concentrated. One large patch of Cocinoplura was photographed.

0898

(21)

2K11 — Buzzards
2K12 — Gold Mtn Ranch Nomad
2K13 — Rocks in yard.
2K14 — Cathedral Mtn from US 90
2K15 — view on Iron Mtns Ranch next Gully east of 721y; showing wood 1 & wood 3 capping Hill
2K16 — Loc 720d, 721x, 721y
2K17, 18 — Cacti at 721z

720e is on the upper ledge (thick biohermal) of the Conoco Wash cliff. The overlying 720d is a thin platy unit of thin-bedded limestone with numerous chert nodules.

721z is 4' higher than the thick ledge and caps the 720d. 721z has numerous Thamnopora colonies. The fossils are well preserved and abundant.

2K19, 20 West of Conrad Mtns

The 722e represents the middle biohermal ledge on this side of the valley. Almost places fossils other than coral are found in this ledge

0879

(22) June 28—

2K 21 — Sullivan Peak from pass on Dove Ranch.

710h - Small chonetid bed forms a band about 4' thick around the knob at 5250' and about 30' below the crest of the knob. The chonetids are distinctive but very scattered and hard to be collected in individual small pieces with one or two specimens to the piece. The bed is at about 5220'.

2K 22 - Yellow dacites (small dizzy fault

afternoon interrupted by rain but three hours were spent in prospecting the west side of the back slope of the hill just east of Sullivan Peak. Fine grained massive mostly calcareous with long slender cryptozoa and other beds. Cisciophora occur at top. Other fossils are concentrated in patches and are usually not obtainable because of the shaving nature of the rock. Cisciophora appears at the top.

2K 23 — 707e with 75 mm lens from base of Mtn.

0880

(23) June 29.

Went to spur of Sullivans Park for blocks.

The zone with Chonetes in the lowest zone of fractured and cemented 185 feet below the top of the rock or at 5165 feet. Fusilozone appears to be about four feet thick Below it the rock is very thin bedded.

The next 76 feet above the Chonetes zone has four fossiliferous, layers a few thick spirifer shells, then about 5241 feet to 5257 feet the rock is highly fossiliferous and this is the best Chonetes zone of brachiopods and the most diverse fauna. From 5157 feet to 5285 the rock is grayish with brown and red weathering.

Above 5285' to top of hill 5350' the rock is dark gray with many fossils in pockets. At top of the hill along the west ridge of hill Coniferous trees are seen and the rock is full of long Dyrinoid and stems of Crinoids. The top is like that of Red hill similar to the east.

Then late afternoon visited Iron which is Red top of the Burnt Homes Here it is Dary Brown Fe with small pebbles and what appears to be boulders of lime, Coral, Bryozoa rounded. Gastropods and fragments of spirifers are abundant. Unable to distinguish the collecting spot of Iron.

0881

(24) J-30-61 — Went up first gully from Gault to check bedding. Here Lodge and Longdale, #1. The rock is mostly shale, actually clay shale in places but has limestone layers. Shale is medium yellow and has sandy silts and also pebbles.

722 h — Flint on the side of the spur. Found the Lodgian Zone about 55' below the top. The beds are on the south facing slope mostly debris but visible with limonitic stains. Found chert containing Spirifer opima. The zone is about 15 feet thick and is from about 4695' to 4685'. This corresponds to one of the 705 numbers.

2K24 — [illegible] flint from [illegible] thick [illegible]

2K25 — Coccinoplura chert from SW
2K26–30 — Wildwood Hill
2K31 — Stem crinoidal limestone from Mtn.
2K32 — Lower Hale from Wildwood Hill
2K33 — J-30-61
2K34 — Spur

0882

(25)

2K35 — Thick gl sandy nodules
Lemon Hills

2K36 — Contact Dem x Wolfcamp
2K37 — High hill just west of windmill and 2K36.

3K 1 — 9 bot — fine winnow
3K 10-12 — Cacinoghinabed on Dem
3K 13, 14 — Middle Dem with Lemon Hills cgl in foreground, one to N(13), one to west (14)
3K 15 — Lemon Hills cgl.
3K 16 — 36 — Geol column out of market Recommend.

Jy 1-61 West-yo gully just W. of 708e.

First 30' above Neva ledge consists of Thin bedded yellow shale forming nearly linear rib for 1 or 2 feet. Then hard detrital bed for one foot. Also nearly linear. Fossil Scaphinella common. This interval is strat graphic

0-16 steps vertical above Neva (including 30' described above) Remainder covered except for the lower 10' vertical

16-27 — Mostly dark shale with Rare layers of ls carbonaceous. The clay is bleached with many small pods. like 707 ha, at top 26 comes a nearly bed of ls with fossils (n. gen. prob) like Sipho Lon seen 2' hard siliceous shale followed by a 3' limestone cgl. with Spirocisma Fossils forms top of 27' Boulders in cgl up to 3'.

27-28L About 5½' of hard bedded chert dark gray but weathering yellow.

Jy 1-61

0883

(26)

28-29 — Mostly shale

29 + 30' thick ledge of clayey limestone with brown siliceous stains containing Spyridiophora, n.gen., Nikiloukia-like Leiosphaeridia, Meskella, spiny spheroids

Top of this 1" interval has another 2' of shale + limestone

31-32 — Thick bed of hr. crsgl. with boulders up to 4' in one direction

33-36 — about 2' mostly of clast + thin bedded ls.

37 through 40 — Mostly thick bedded ls. one 8' to 31' thick with siliceous stains + some interbedded clast.

41 thru 45 — 27' of massive cgl having limestone and dolostone pebbles. Upper ledge is 2' of sandstone making total of 29.0

46, 47, 48, 49 all in thin bedded 2" tone ft. of sandstone and sandy limestone called Leonard #1. Above it is the yellowish to orange siliceous shale of the Leonard.

The Leonard #1, cleaned & measured from 29-49 = 113' and the Spyridiophora are in the lower part

On the next ravine east the 22' (2½ units) of sandstone & sandy limestone do not present as well the Leonard acts on Ge with bolsons but also some land in Ra-gl.

The Leonard is more siliceous + more blocky than the interval between Kent Ledge + Leonard #1

0884

(20)

ax Jy 1-61 I estimate Hero Ledge at about 4650'.

4K 1-13 — Hills 5210 on Docoo 6 & 11 acq 7020
4K 14 — Dugout Hornfigure Knife
4K 15, 16 — Leachiella biohem SW of Arnold Ranch.
4K 17 — flowers.
4K 18-23 — Biohems & cgl. at Jy 2-61 (rare flowers)

Jy 2-61 - 2 large biohems flanked on each side and in between by conglomerate. The biohems have cgl. at the base (lo. cgl) in of light gray limestone with much recrystallized siliceous material. Small coral Lithocodia and scattered rocks. Siliceous material might be algal. About 30' high + about 100' wide. Some of the siliceous material is bryozoa. Inclusions of cgl of huge criniod stems at base.

The westernmost biohem is about 25' high and 75' long and underlies between cgl with huge boulders. The upper part of the biohem overlies the lower part of the cgl. It appears by overlies cgl which can be seen at the top of the biohem. Some cgl pebbles in biohem. The biohem rock is limestone.

0885

4K24 - Siltstone and Fine
4K25,26 - Yellow flowering Dugout.
722j - limestone bed between Nose
Ledge & Leonard #1. Contains small
undetermined appendage of one foot
708c. This should be grouped
closely with the next Productid
from 722h. This fossil may be the
same. This would also account for
the distinctive color, may be the
same. This location is about 75 feet
above the Nose Ledge (722i). Low
Lepidodendron tree.
4K27 - Nose ledge also yields
75-100' thick.
4K28 - Some kind of algae

Jg 3-21 - Lower half of Leonard #1, mostly
Calcareous conglomeratic, coarse
grained in part, lenses. Fossils few
scattered and badly broken. Not
coarsely conglomeratic as on Dean's place.
✓ 722k - a calcareous bed in the yellow shale
between Nose Ledge and top of Leonard
#1, at a point 75' below top of Leonard
#1. Saw small productids, Chonetes, Nose
fauna 722j and Linoproductus, Lepidodendron
Elongated. The thick pinkish gray chert is present
in Leonard #1.
Between #1 & #2 is much sand & shale
in the form of lenses, pinkish & yellow
We saw few fossils in the limestones,
mostly broken productids

4K29 - flowers (red).

4K30,31 Dugout mostly showing Wolfcamp
shale beds
4K32 - 707a

$$\begin{array}{r} 50 \\ 259 \\ 114 \\ 303 \\ \hline 726 \end{array}$$

$$\begin{array}{r} 53 \\ 15 \\ \hline 275 \\ 55 \\ \hline 843 \end{array}$$

0886

4K 33,34 — WC Hills
4K35 - Neal Ranch
4K36 - 701d from east side

5K 1 — 701d close on east side
5K 2 - Stratified biohem
3 - Side view up Ecological Canyon
4 - Fusiform Proboscidea 701C. Gr
Lepfodid biohem.
5 - View up ecological canyon showing
701g, bed 4 & 9 — Failed to step down
6 — same as 5
7,8 — West end of 701h showing
mosaic under it
9,10,11 — 701K biohem + mosaic
12 - up Ecological Canyon.

13,14 — 706e.

Locality 5T. July 4
West base of hill west of Wolf
Camp Hills. Stratified beds of
upper WC.

0887

July 4 - Went to Wolfcamp Hills where we collected 3 blocks from the Stratifera bed.

In afternoon went to Hess Ranch for 706 blocks for Stehlin and Winston. Called on Hess family at the Ranch house.

July 5 — packed all day. Wrapped 42 ~~72~~ blocks for shipment and have 40 to go

July 6 — Finished packing — 81 bundles and 4 boxes.

July 7 Shipped boxes

0888

July 8 – Travelled from Marathon to Van Horn. Arrived late morning. Had car looked at. Afternoon called on Mr. Nutt for permission to go to Red Tank Canyon. Received rooms at Nichol Creek Camp.

725a = July 9 – Layer of fossiliferous limestone about 30' below top of hill facing East west flowing wash on west side of Smoke in Red Tank Canyon. Contains Leachiella. Occurs at about 4720'. Took 2 small pieces

725b = This is CMNH #700 it is on the east side of the last narrow flowing wash on the west side of the narrow. The bed is about half way up the hill between the top of the hill and the canyon floor. The divide. The bed contains large productids, Leguliferina and some others. We took 5 small pieces. The elevation is at about 4750'.

0889

July 19 - Worked on NE side
East hill of Bayler Mtns on
the north side of the Mtns.
hill 4402 (4410) on west side
US 54. Took 5 blocks and
some small pieces
725c - Thin seam of basalt about
130 feet above the Kueco limestone

725d - Mollusc bed about 108'
above Kueco limestone

Returned out route to Victorio
Canyon, came back to Van Horn
and prepared 11 blocks + one
bundle for shipment.

0890

July 11 - Sent 12 bundles to Tally
740 pounds from Van Horn. Left
Town about 9:30 arrived Nickel
Camp 11:00 A.M. West part of the
Nickel Creek placer is a little N of
the highway and about opposite
the entrance to the D Ranch
on the N side of the road. Have
found extensive expressions of
725e Lamm and Ord L. 4 blocks and
2 small pieces numbered 725e.

725e - About 1/4 mi N of US62-180,
3 1/4 miles NE of Hegler Ranch, and
1/2 mile NE of junction of Pratt
Place road with main highway
and opposite present junction of
D Ranch road with main highway

0891

725i — Lowest Capitan or uppermost Piney Smith Canyon, north of Fajoda, Texas

725j — Capitan - Smith Canyon

July 14 - Went up Smith Canyon to see Capitan. Mostly massive dirty tan and with few fossils. Collecting very poor.

725k — One block about 500' below top in canyon N of Upper Pine Spring

725-l — Mostly from about 500' below top of Canyon N of Upper Pine Spring and several hundred feet lower.

725m Very top of canyon N of Upper Pine Spring.

July 15 - Went up Canyon N of Upper Pine Spring on a fine trail. Climb took 3 hours. At very top or edge of plateau The Capitan contains a great mass of fusulines. The limestone for the upper 750 feet is mostly light colored, rather massive and with scattered brachiopods. Collecting was disappointing.

0892

5K-23 — Ridge ridge from Nickle Creek Camp

Mr. R. A. Tejon, Pine Spring Route, via Caliente
Nikel not Nickle

5K 24, 25 — Ridge & hill from Hogsback
5K 26, 27 — Up Pine Spring & Canyon to N

0893

Blocks from Guadalupe

Lamar	725e	4
Hagler	731	6
Getaway	Newell 600	1
Rudel	725f	6
Gaden	725g	1
Pinery	725h	2
Pinery	725m	1
Radel	7250	1
		22

about 2700 lbs.

0894

Numbers available

~~719 x, y, z~~
~~720 y, z~~
721 ~~r, s, t, u, v, w, x, y, z~~
722 ~~e~~-z
~~723 a-z~~
~~724 a-z~~
~~725 c-z~~

10930 pounds

List of blocks

	721 j — 14 small blocks	7
×	719 x	11
×	719 z	4
×	720 y	2
×	721 r	2
×	721 s	2
×	721 t	1
	706 d	2
	703 c	2
×	721 u	9
×	721 w	1
	720 d	3
×	721 x	4
×	721 y	6
	721 z	1
×	722 e	4
×	722 f	1
	707 e	8
×	722 g	2
×	722 h	1
×	722-l	3
	57	4

50

(80)

721